

Title (en)

I/Q imbalance correction in a quadrature transceiver

Title (de)

Korrektur von I/Q Ungleichheiten in einem Quadratur-Sender-Empfänger

Title (fr)

Correction d'un déséquilibre I/Q dans un émetteur-récepteur en quadrature

Publication

**EP 1416691 A1 20040506 (EN)**

Application

**EP 02024392 A 20021104**

Priority

EP 02024392 A 20021104

Abstract (en)

A number of M samples is used for repeatedly calculating initial calibration coefficients ( $h_k(M)$ ), where M' is an integer which is larger than 1'. An averaged calibration coefficients ( $h(M)$ ) is calculated by averaging the initial calibration coefficients, based on which in-phase/quadrature (I/Q) signal is corrected. Independent claims are also included for the following: (1) in-phase/quadrature modulator; (2) in-phase/quadrature modulator operation method; and (3) in-phase/quadrature demodulator.

IPC 1-7

**H04L 27/00**; **H03D 3/00**

IPC 8 full level

**H03C 3/40** (2006.01); **H03D 3/00** (2006.01); **H04L 27/00** (2006.01)

CPC (source: EP)

**H03C 3/40** (2013.01); **H03D 3/009** (2013.01); **H04L 27/0014** (2013.01); **H04L 2027/0016** (2013.01); **H04L 2027/0018** (2013.01); **H04L 2027/003** (2013.01)

Citation (search report)

- [AD] US 5705949 A 19980106 - ALELYUNAS CARL H [US], et al
- [AD] PIERRE J W ET AL: "CONSIDERATIONS IN THE AUTOCALIBRATION OF QUADRATURE RECEIVERS", PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP). DETROIT, MAY 9 - 12, 1995. STATISTICAL SIGNAL AND ARRAY PROCESSING, NEW YORK, IEEE, US, vol. 3 CONF. 20, 9 May 1995 (1995-05-09), pages 1900 - 1903, XP000533080, ISBN: 0-7803-2432-3

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CN111490959A; EP1643635A3; GB2419483B; US7986930B2; WO2010014989A2; US7894555B2; US7822399B2; EP1643635A2; EP2223485B1

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